

SYSTEM AND METHOD FOR REMOTELY MONITORING AT LEAST  
ONE PHYSIOLOGICAL CHARACTERISTIC OF A CHILD

## ABSTRACT OF THE DISCLOSURE

5           There is disclosed a system and method for remotely monitoring  
at least one physiological condition of a child by detecting very  
low frequency acoustic signals. The apparatus comprises a sensor  
that is capable of detecting low frequency acoustic signals in the  
frequency range of one tenth Hertz to thirty Hertz. The sensor  
10       comprises a chamber having portions that form a cavity and a low  
frequency microphone placed within the cavity. An alternate  
embodiment of the invention comprises a chamber having portions  
that form a resonant cavity, a microphone mounted in the resonant  
cavity, and a membrane that covers the resonant cavity. Low  
15       frequency acoustic signals that are incident on the membrane cause  
the membrane to move and amplify the acoustic signals within the  
resonant cavity. The sensor provides information concerning  
physiological conditions of the child, such as respiration and  
cardiac activity. The sensor in a physiological condition monitor  
20       does not need to be directly coupled to the skin of the child being  
monitored.